optical limiting properties, ZnFe2O4 is found to be a better candidate for the optical limiting applications. This can be explained on the basis of polarization effects, which depends on the number of Fe^{3+} ions in the octahedral sites.

Research papers

1. **Magnetic study on Ni-Zn ferrite nanosystems using VSM, Jeevan Job Thomas and Nandakumar Kalarikkal, Indian Journal of Cryogenics, Vol. 33. No.1, 2008.**
2. **Mossbauer Study of Ni, Ni-Co, and Co Ferrite Nanoparticles, Jeevan Job Thomas, Nandakumar Kalarikkal, AIP Conf. Proc. 1349, 2011, 1175-1176.**
3. **Sol-gel synthesis and structural characterization of Ni1-xZnxFe2O4 nanosystems, Jeevan Job Thomas and Nandakumar Kalarikkal, Solid State Physics Symposium (India), 51, 2006, 281-282.**
4. **Effect of particle size in the electrical conduction mechanism of Ni0.5Zn0.5 Fe2O4 nanosystems, Proceeding of ICNM – 2009. Published online by Published by: Applied Science Innovations Private Limited, India. On http://www.applied-science-innovations.com**.
5. **A Comparative Study on the optical limiting properties of different nano spinel ferrites using Z-Scan technique, Jeevan Job Thomas, Shiji Krishnan, K. Sridharan, Reji Philip, Nandakumar Kalarikkal (Submitted after revision to Materials Research Bulletin, 2012).**
6. **Cation distribution and micro level magnetic alignments in the nanosized nickel zinc ferrite, Jeevan Job Thomas, A. B. Shinde, P. S. R. Krishna, Nandakumar Kalarikkal (Submitted to Journal of Alloys and Compounds, 2012).**
7. **Temperature dependent neutron diffraction and Mossbauer studies in zinc ferrite nanoparticles, Jeevan Job Thomas, A. B. Shinde, P. S. R. Krishna, Nandakumar Kalarikkal (Submitted to Materials Research Bulletin, 2012).**
8. **Noncollinear magnetic alignment in nickel ferrite nanoparticles synthesized through PVA sol-gel route, Jeevan Job Thomas, A. B. Shinde, P. S. R. Krishna, Nandakumar Kalarikkal (Submitted to Journal of Magnetism and Magnetic Materials, 2012).**

Papers presented in national and international conferences

1. **Non collinear magnetic alignment in nickel ferrite nanoparticles synthesized through sol-gel method with PVA, Second International Conference on nanomaterials: synthesis,**

characterization and applications, Mahatma Gandhi University, Kottayam January 12th -15th , 2012.

2. **Mossbauer Study of Ni, Ni-Co, and Co Ferrite Nanoparticles, 55th DAE Solid State Physics Symposium, Manipal University, Karnataka on December 26th - 30th , 2010.**
3. **Magnetic and AC Electrical Conductivity Studies of Nickel-Cobalt Nanoferrites Prepared by Low Temperature Sol-Gel Method, International Conference on Nanomaterials, Mahatma Gandhi University, Kottayam, April 27th -29th , 2010.**
4. **Magnetic Anisotropy Barrier and Grain boundary effect in Ni 0.5Zn0.5Fe2O4 Nanoparticles, National Seminar on Nano Structured materials and Nano photonics, St.Teresa's college, Ernakulam, February 4th -5th , 2010**
5. **AC Electrical conductivity studies of Nickel-Zinc nanoferrites prepared by low temperature sol-gel method, National Symposium for Material Research Scholars, , IIT Bombay May 7th -9th, 2009.**
6. **Effect of particle size in the electrical conduction mechanism of Ni0.5Zn0.5Fe2O4 nanosystems, ICNM, Mahatma Gandhi University Kottyam, April 6th -8th, 2009.**
7. **Effect of particle size in the conduction mechanism of Ni0.5Zn0.5Fe2O4 nanosystems, National Seminar on Photonic Materials, University of Kerala, Kariavattom, February 26th -28th, 2009.**
8. **Effects of chelating agent on sol-gel synthesis of nano-biferroic YCrO3, Second International Conference on Frontiers in Nanoscience and Technology, Cochin University of Science and Technology, Cochin January 3rd -6th , 2009.**
9. **Magnetic study in Ni-Zn Ferrite nanosystems using VSM, International Conference on advanced Materials, Mahatma Gandhi University, Kottayam, February 18th -21st, 2008.**
10. **Sol-gel synthesis and structural characterization of Ni1-xZnxFe2O4 nanosystems, 51st DAE Solid State Physics Symposium, Bhopal University, Bhopal, December 26th -30th, 2006.**
11. **Magnetic Neutron diffraction study of nanoparticle NiFe2O4, Workshop on Functional oxides Materials, Inter University Accelerator Centre, New Delhi, September, 25th -26th, 2006.**
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